

Abstract

The methods disclosed herein are of use for the treatment of muscular deficiencies. A Pavlovian system of reward is used to reinforce the efforts of an individual to contract an impaired muscle. The device detects patterns of electrical impulses sent from the brain to an impaired muscle and measures the strength of the impulses against a threshold value. If an impulse exceeding the threshold value is observed, current is sent to electrodes causing the muscle to contract. If an attempt is registered that does not meet the threshold value, the threshold value is lowered and the individual makes another attempt. This novel muscular therapy could potentially rehabilitate thousands of stroke and spinal cord injury victims each year.

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